

20040203.qrp v03\_n185.qrl.20040203

Date: Tue, 3 Feb 2004 19:03:12 EST  
From: qrp-l@Lehigh.EDU  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: QRP-L digest 3185

QRP-L Digest 3185

Topics covered in this issue include:

- 1) [166897] DDS Daughter Card for by PIC-EL  
by "Brian Riley (maillist)" <n1bq\_list@wulfdn.org>
- 2) [166898] Signal plus Noise to Noise ratio  
by Karl Larsen <k5di@zianet.com>
- 3) [166899] Koch method of learning  
by Karl Larsen <k5di@zianet.com>
- 4) [166900] Resistor Color Code Colors  
by "John Farnsworth" <johnfarns@bellsouth.net>
- 5) [166901] RE: [qrp-l] Need Help with Miniboosts Amplifier  
by "Nick Kennedy" <wa5bdu@tcainternet.com>
- 6) [166902] Re: Resistor Color Code Colors  
by Garey Barrell <k4oah@mindspring.com>
- 7) [166903] Re: Resistor Color Code Colors  
by "John J. McDonough" <wb8rcr@arrl.net>
- 8) [166904] Re: Koch method of learning  
by "Trevor Jacobs" <kg6cyn@softhome.net>
- 9) [166905] Re: DDS Daughter Card for by PIC-EL  
by "George Heron N2APB" <n2apb@clearviewcatv.net>
- 10) [166906] Re: Koch method of learning  
by <w9ya@arrl.net>
- 11) [166907] PIC-EL: Don't overheat SPKR leads  
by "George Heron N2APB" <n2apb@clearviewcatv.net>
- 12) [166908] Re: DDS Daughter Card for by PIC-EL  
by "George Heron N2APB" <n2apb@clearviewcatv.net>
- 13) [166909] Re: DDS Daughter Card for by PIC-EL  
by "Lew Paceley" <lew@paceley.com>
- 14) [166910] Re: DDS Daughter Card for by PIC-EL  
by "George Heron N2APB" <n2apb@clearviewcatv.net>
- 15) [166911] Fox - Fox Hunt Team Results...  
by "rattray" <rattray@accesscomm.ca>
- 16) [166912] Fox - Fox Hunt Team Results...  
by "rattray" <rattray@accesscomm.ca>
- 17) [166913] TNX  
by PMdc361@aol.com
- 18) [166914] RE: Koch method of learning  
by "Ray Goff" <radioham@gmx.co.uk>
- 19) [166915] PIC-EL Encoder, A Lesson Assignment

- by John R Kirby <n3aaz-qrp@juno.com>
- 20) [166916] Re: PIC-EL Encoder, A Lesson Assignment  
by "John J. McDonough" <wb8rcr@arrl.net>
- 21) [166917] Prep for FYBO '04  
by "SteveG" <n0tu@codenet.net>
- 22) [166918] DDS Daughter board?  
by <n2go@arrl.net>
- 23) [166919] AVR-DEV Update  
by "w8diz\_qrpl\_2" <w8diz\_qrpl\_2@partsandkits.com>
- 24) [166920] Re: Signal plus Noise to Noise ratio  
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- 25) [166921] Re: DDS Daughter board?  
by "John J. McDonough" <wb8rcr@arrl.net>
- 26) [166922] MPLAB CDs Flying Through the Mail!  
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- 27) [166923] FS FT 2400 H  
by "Donald Dorn" <DDORN@CWIS.NET>
- 28) [166924] relay needed  
by "john gabbard" <johngabbard@usintouch.com>
- 29) [166925] Re: PIC-EL Encoder, A Lesson Assignment  
by Steven Weber <kd1jv@moose.ncia.net>
- 30) [166926] FT 2400H XCVR SOLD  
by "Donald Dorn" <DDORN@CWIS.NET>
- 31) [166927] Re: PIC-EL Encoder, A Lesson Assignment  
by "John J. McDonough" <wb8rcr@arrl.net>
- 32) [166928] HW8 and WTB one  
by "Juanjo Pastor" <ec5aca@wanadoo.es>
- 33) [166929] 3T Toggle Switches  
by Barry N1EU <n1eu@yahoo.com>
- 34) [166930] Re: Signal plus Noise to Noise ratio  
by Karl Larsen <k5di@zianet.com>
- 35) [166931] Fw: Les Moxon, G6XN  
by "brian russell" <brian-nsl@freenet.co.uk>
- 36) [166932] ELMER 160-Lesson8-"stimulus-won't"  
by David R Shalita <dave\_shalita@juno.com>
- 37) [166933] KD1JV SWR/POWER METER  
by John Sielke <jsielke@pobox.com>
- 38) [166934] Re: ARCI Web Site follow Up  
by "Thom R. Lacosta" <lacosta@bcpl.net>
- 39) [166935] PIC-EL: Speaker gets warm in ver 1 test suite  
by "George Heron N2APB" <n2apb@clearviewcatv.net>
- 40) [166936] PIC-EL #2 is here  
by "John" <digi2@earthlink.net>
- 41) [166937] Michigan QRP Net  
by kwiike@gdls.com
- 42) [166938] Re: 3T Toggle Switches  
by "John\_Evans" <jaevans@mail.codenet.net>
- 43) [166939] Floating Point Libraries for PIC? Amtel?

- by Steve Lawrence <Steve.Lawrence@ITWFEG.COM>
- 44) [166940] Re: Floating Point Libraries for PIC? Amtel?  
by "Noyce, Bill" <william.noyce@hp.com>
- 45) [166941] Elmer 160: Minimum Clearance for DDS Daughtercard  
by Garey Barrell <k4oah@mindspring.com>
- 46) [166942] Re: 3T Toggle Switches  
by "Russ Hines" <wb8zcc@fuse.net>
- 47) [166943] Re: 3T Toggle Switches  
by "carl seyersdahl" <carlseye@tampabay.rr.com>
- 48) [166944] Atmel AVR Design Contest  
by "John" <digi2@earthlink.net>
- 49) [166945] OT Soldering Aluminum  
by "Brian.Buydens@usask.ca" <buydens@duke.usask.ca>
- 50) [166946] Truffle hunt  
by "Jerry Ford" <benlightnd13@mchsi.com>
- 51) [166947] Re: 3T Toggle Switches  
by Peter Burbank <peterlee@qx.net>
- 52) [166948] Re: Floating Point Libraries for PIC? Amtel?  
by "John J. McDonough" <wb8rcr@arrl.net>
- 53) [166949] SOMEONE here has a virus...  
by "Mike Yetsko" <myetsko@insydesw.com>
- 54) [166950] Re: Elmer 160: Minimum Clearance for DDS Daughtercard  
by "Craig Johnson" <cbjohns@cbjohns.com>

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Date: Mon, 02 Feb 2004 19:37:54 -0500  
From: "Brian Riley (maillist)" <n1bq\_list@wulfdan.org>  
To: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>  
Cc: George Heron N2APB <n2apb@amqrp.org>  
Subject: [166897] DDS Daughter Card for by PIC-EL  
Message-ID: <BC445792.1E7EC%n1bq\_list@wulfdan.org>  
Mime-version: 1.0  
Content-type: text/plain; charset="US-ASCII"  
Content-transfer-encoding: 7bit

I built my DDS Daughter card for my PIC-EL this afternoon ... Boy I will never complain about the 1/8th watt resistors in the PIC-EL again! Those surface mount caps, resistors and cols in the DDS are a beast!

Three questions:

1) R4 - which value 12v or 13.8 volts???? since 12V is pretty much the bottom end of acceptable programming voltage and most likely people will be pumping it 12.5-13.5 volts. Should I use the 13.8 value?

2) C13 - what???????????? It is silk-screened on the back of the board, it is depicted in the photographs, but it's nowhere on the list, the parts card,

or the schematic!!!!

3) Jumper E-F ????? Text says install jumper from E to F, picture shows jumper from F to G .... Which is it?

cheers .... 73 de brian, n1bq

-----  
Date: Mon, 2 Feb 2004 18:06:38 -0700 (MST)  
From: Karl Larsen <k5di@zianet.com>  
To: qrp-l@lehigh.edu  
Subject: [166898] Signal plus Noise to Noise ratio  
Message-ID: <Pine.LNX.4.44.0402021752571.4701-100000@bucket.dog>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

WF5A brought his Electrocraft 50 and 1 microvolt kit to my home and we measured the S meter and both the TS-50 and FT-817 had a S9 signal shown when the radios were tuned to 7.040 and the kit was making 50 microvolts. They both read S9 after I turned on the preamp on the FT-817.

Then we made 1 microvolt and measured the rms voltage at the speaker of both radios with and without the signal. It appears to me that with this data we can calculate the signal+noise to noise of the radio. But who cares? I have not seen the paper with the kit, but looked at the ARRL tests and nowhere can I find a S/N measure.

--

- Karl Larsen k5di Las Cruces,NM Az ScQRPions -

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Date: Mon, 2 Feb 2004 18:51:06 -0700 (MST)  
From: Karl Larsen <k5di@zianet.com>  
To: qrp-l@lehigh.edu  
Subject: [166899] Koch method of learning  
Message-ID: <Pine.LNX.4.44.0402021824000.4701-100000@bucket.dog>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

I re-read chapter 29 of the book and digested what was there in

a far different light than George W5YR and others do. I'm a student of history. In 1936 in Germany Hitler was in power since 1934 and some terrible things were happening. The average German has been in poverty for 15 years and ANY job is a gift from God.

In this light Koch was told to study how men learned the morse code (German type). He had some students and some working morse code experts. His students were promised that if they could get to 25 WPM they could get great paying jobs!

He found that if he sent code at character rates less than 12 WPM the experts could not copy it. He also found that if he sent the characters at 12 WPM and slowed the code rate to 5 wpm, the experts could copy fine.

He had 4 experts 3 of which learned the code from sound and one who learned using printed charts and such. He found the guy who used the printed charts was marginal at 25 WPM!

Koch says ABSOLUTELY introduce one character at a time, ALONG with all those already learned. He found that a 30 minute session was the ultimate study time. He said start at 12 WPM but have 20-30 days to complete the training. This needs two 30 minute study periods every day.

His students were very interested in succeeding because they would qualify for a good job. My students are trying to get a General Ham license. They know they can wait a few months and not need the code.

I have 14 days to get my students to 5 WPM. So this is MY way to get this done.

Here is my latest paper for the students:

### Learning to use the Morse Code

There are 3 phases in learning to send and receive using the Morse Code. The first phase is to learn the 40 characters. The second phase is to learn how to copy the characters quickly so you can do it at a rate of 5 words a minute. The third phase is learning to do it much faster which requires that you train yourself to convert a Morse code character heard by your ear to a written character on paper automatically. At all Effective Code Speeds below 15 words per minute (WPM) use the Farnsworth method and use the Actual Character Speed of 15 words per minute, but select the proper Effective Code Speed. The source of the Morse Code is the Koch version 5 software from G4FON. With this software you can select how many different characters are sent and their speed. You can download this software from

[www.qsl.net/g4fon/](http://www.qsl.net/g4fon/).

#### Phase One:

After we learn to use the Koch software, each of us will set up our software to send 2 characters at 3 words per minute. This will be very easy. Then we will send 4 characters at 3 word per minute. This begins to get difficult. When you find that you are able to copy 90% of the characters correct add another character.

When you reach about 20 characters it is most difficult. Let me say here that your LEARNING. And learning is difficult for all but the few genius's among us.

When you are using 40 characters at 3 words a minute and getting 90% of them right, you are done with phase one.

#### Phase Two:

Now set the word per minute to 5 wpm. Be certain that you don't have my paper with A=dit dah on it in sight because now it's too fast to hear the sound, glance at the paper, and write it down. At this speed you must simply hear the Morse code, in your head convert it to an English character and write it down.

Practice until you can copy over 90% of the characters correct. You are done with phase two, and you can pass the amateur radio code test.

#### Phase Three:

At this point you can copy 5 words per minute and you may want to copy at faster speeds. This is done by learning. It is just like phase two. You simply set Koch to 7 words per minute and copy it until your getting 90% of the characters right. Then up the speed 2 words per minute until you reach the speed you desire.

#### How to Copy Code:

In this class we will write down all the morse code we hear. So always have paper and a pencil or pen. Make a 5 minute run and do this: If you know what the character is write it down, if you can't think what it is draw a short line indicating you missed one.

When you grade your paper look at what Koch sent and locate those characters you missed. If necessary look at your Code List and find out what

the morse code sounds like.

Time:

How long is phase one? It depends on you and how long you study each day. If your committed and spend 30 quality minutes every day, you should be done in 7 days. If you don't study, or do so "off and on", you can spend 30 days! Phase two is faster. With study it will take 5-7 days. Your now ready to take the test.

If your done with phase two and have some free time, I suggest going to phase three and get as far as you can before the end of class.

So hope this explains my position. And History tells us a lot.

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- Karl Larsen k5di Las Cruces,NM Az ScQRPions -

-----  
Date: Mon, 2 Feb 2004 20:42:43 -0500  
From: "John Farnsworth" <johnfarns@bellsouth.net>  
To: "qrp-1@Lehigh. EDU" <qrp-1@Lehigh.EDU>  
Subject: [166900] Resistor Color Code Colors  
Message-ID: <DIEHLGHLBGPNJENLGEBKOEPPCAA.johnfarns@bellsouth.net>  
MIME-Version: 1.0  
Content-Type: text/plain;  
          charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

I read Ed's post with interest, as I too have found it increasingly hard to discern differences between colors on resistors. I blamed it on aging eyes.

Bright lights help; Ed has an interesting discovery.

One other observation: I have little plastic boxes of 1/4 watt resistors for each value, and put all multipliers in one small box (10, 100 1k, 10k 100k etc). I have used this system for years, as I didn't have the space for a box for each value, and I found that this way you are looking for only one out of 4 or 5 values, and that third band is easy to spot. Anyway, as usual I digress. While looking for a resistor recently, I found some REALLY old ones, probably carbon comp, with sharp edges on the ends, not like the conformal coating we see nowadays. Anyway, the colors were MUCH easier to read! So I looked for a few more, and it seems that the newer resistors,

like the ones from Mouser, which are a big bargain, 100ppm and a penny each, etc etc., well anyway, the colors are just not as "accurate", i.e. they seem to be closer to each other than the same colors on one of the older Allen Bradley resistors. So now I give my eyes the benefit of the doubt, and drag out the mag-lite 2-AA job with the led conversion front end a lot, which as Ed says, makes it much easier to read them. Anybody else notice that "old" resistors have "better" color codes?

-----  
Date: Mon, 2 Feb 2004 20:01:09 -0600  
From: "Nick Kennedy" <wa5bdu@tcainternet.com>  
To: "'Daniel Hazen'" <dghazen@earthlink.net>,  
      "'Low Power Amateur Radio Discussion'" <qrp-l@Lehigh.EDU>  
Subject: [166901] RE: [qrp-l] Need Help with Miniboosts Amplifier  
Message-ID: <004501c3e9f9\$97896bc0\$0400000a@wa5bdu>  
MIME-Version: 1.0  
Content-Type: text/plain;  
              charset="us-ascii"  
Content-Transfer-Encoding: 7bit

I assume you calculated the equivalent number of turns for the T37-6 cores versus the original T50-6? It's a nice check if you can measure their inductance, even when you have the right cores.

But a lot of people don't have L/C meters. Do you have an antenna analyzer? The output filter on a rig like this typically also transforms the 50 ohm antenna impedance to the right value for a class C amplifier based on DC supply voltage. This one was probably designed to transform to 15 ohms or so. You could connect a 15 ohm resistor from the FET end of the filter to ground and look into the antenna end of the filter with the analyzer. Should look like 50 ohms with a good SWR. If it's way off, you may have problems with the output filter. If you're shooting through the relay and switch, all the better to check them all at once.

Not sure I understood all the comments on the bandswitch. Those DPDT toggles can be tricky. Sometimes (I think) the contact that the bat handle points toward is closed in that position, and sometimes (usually?) it's the opposite end contact. Always good to verify with a meter.

For any other interested parties, the schematic is here:

<<http://www.amqrp.org/kits/miniboosts/>>



72--Nick, WA5BDU

-----Original Message-----

From: owner-qrp-1@Lehigh.EDU [mailto:owner-qrp-1@Lehigh.EDU] On Behalf  
Of Daniel Hazen

More Clues!

I apparently got a kit with T37-6 yellow toroids rather than the  
original T50-6 toroids: I wound L2 with 12 turns; L3 with 13 and L4  
with 17 turns. L2 and L3 are in the 20 M circuitry, while L4 goes with  
40 M.

What am I missing?

Thanks!

Daniel NOBN

-----  
Date: Mon, 02 Feb 2004 21:57:39 -0500  
From: Garey Barrell <k4oah@mindspring.com>  
To: johnfarns@bellsouth.net  
Cc: Low Power Amateur Radio Discussion <qrp-1@lehigh.edu>  
Subject: [166902] Re: Resistor Color Code Colors  
Message-ID: <401F0E23.3020703@mindspring.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii; format=flowed  
Content-Transfer-Encoding: 7bit

John -

Absolutely! The old carbon comps could be read from "across the room" in just  
about any light.

By the way, the "sharp edge" ones are mostly Allen-Bradley carbon comps. And  
they ARE NOT "really old ones", ... are they!?!?

73, Garey - K40AH  
Atlanta

John Farnsworth wrote:

> I read Ed's post with interest, as I too have found it increasingly hard to  
> discern differences between colors on resistors. I blamed it on aging eyes.  
>  
> Bright lights help; Ed has an interesting discovery.  
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> One other observation: I have little plastic boxes of 1/4 watt resistors for  
> each value, and put all multipliers in one small box (10, 100 1k, 10k 100k  
> etc). I have used this system for years, as I didn't have the space for a  
> box for each value, and I found that this way you are looking for only one  
> out of 4 or 5 values, and that third band is easy to spot. Anyway, as usual  
> I digress. While looking for a resistor recently, I found some REALLY old  
> ones, probably carbon comp, with sharp edges on the ends, not like the  
> conformal coating we see nowadays. Anyway, the colors were MUCH easier to  
> read! So I looked for a few more, and it seems that the newer resistors,  
> like the ones from Mouser, which are a big bargain, 100ppm and a penny each,  
> etc etc., well anyway, the colors are just not as "accurate", i.e. they seem  
> to be closer to each other than the same colors on one of the older Allen  
> Bradley resistors. So now I give my eyes the benefit of the doubt, and drag  
> out the mag-lite 2-AA job with the led conversion front end a lot, which as  
> Ed says, makes it much easier to read them. Anybody else notice that "old"  
> resistors have "better" color codes?  
>  
>  
>

-----  
Date: Mon, 2 Feb 2004 21:59:50 -0500  
From: "John J. McDonough" <wb8rcr@arrl.net>  
To: "Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>  
Subject: [166903] Re: Resistor Color Code Colors  
Message-ID: <001c01c3ea01\$cae3a7d0\$090044c0@BrianBoru>  
MIME-Version: 1.0  
Content-Type: text/plain;  
          charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

There is no doubt that the old colors were easier to read, but I'm not totally convinced they are more "accurate". I think the darker bodies of the older resistors helped. The light bodies of the newer resistors make all the colors look darker, so the brown, red and orange all tend to look a

little muddy to me. It may be, too, that somebody thinks that the newer colors look better than the old, gaudy colors. It's only decoration anyway - you're just going to put the reel on the machine, who is going to look at them?

The newer brown is definitely more brown than the old, which used to be more of a tan to contrast with the resistor body. But I'm not convinced that the red is really all that much less red. It's just harder to tell against the light resistor body.

hehe -- I just realized I had some dark, conformal coated 1K resistors in the drawer, and when I went to see how "innacurate" they were, it happened I also had both composition and light colored metal film. Guess what -- the old composition resistor is kind of barely visible tan, black, pink. The darker conformal one is brown, black, coral, and the light colored resistor is very definitely brown, black red - real red.

I guess I should stick with the little square ones that say "102" on them. No confusion there.

72/73 de WB8RCR      <http://www.qsl.net/wb8rcr>  
didileydadidah      QRP-L #1446 Code Warriors #35

----- Original Message -----

From: "John Farnsworth" <johnfarns@bellsouth.net>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Sent: Monday, February 02, 2004 8:42 PM  
Subject: Resistor Color Code Colors

> I read Ed's post with interest, as I too have found it increasingly hard to  
> discern differences between colors on resistors. I blamed it on aging eyes.  
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>  
>  
>

-----  
Date: Mon, 2 Feb 2004 19:06:08 -0800  
From: "Trevor Jacobs" <kg6cyn@softhome.net>  
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>  
Subject: [166904] Re: Koch method of learning  
Message-ID: <00b401c3ea02\$b0f92ce0\$38fea8c0@TREVORMAINPC>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Karl,

I think that you are getting some history wrong here. Farnsworth's method  
uses more spacing, Koch NEVER added spacing! He also never used look up  
charts, and stressed learning by sound. Read the book "Morse Code: Breaking  
the Barrier" by David Finley, N1IRZ. In fact, this should be required  
reading for any teacher or student of Morse Code.

The Koch method, if followed correctly and done every day DOES work great  
and you can be from nothing to 15 WPM in a very small time frame. If it's  
going to take longer than the allotted time for your students to learn it  
the correct way, so that they have a useful skill instead of eeking by on a  
useless 5 WPM test, then I'd say take a little more time. I wouldn't even  
bother teaching 5 WPM. Adding spacing such as in the Farnsworth method is  
just going to lead to bad on-the-air practice. Teach them the correct way at  
first, then they don't have to get over bad habits later. I'm speaking first  
hand on this. Took me a long time to get over bad sending habits brought on  
by poor teaching techniques...

Good luck Karl and teach them CW the right way, or don't teach them...

73's Trev - KG6CYN

<http://www.qsl.net/kg6cyn>

----- Original Message -----

From: "Karl Larsen" <k5di@zianet.com>

To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>

Sent: Monday, February 02, 2004 5:51 PM

Subject: Koch method of learning

>  
> I re-read chapter 29 of the book and digested what was there in  
> a far different light than George W5YR and others do. I'm a student of  
> history. In 1936 in Germany Hitler was in power since 1934 and some  
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> would qualify for a good job. My students are trying to get a General  
> Ham license. They know they can wait a few months and not need the code.  
>  
> I have 14 days to get my students to 5 WPM. So this is MY way to  
> get this done.  
>  
> Here is my latest paper for the students:  
>

>  
> Learning to use the Morse Code  
>  
>  
> There are 3 phases in learning to send and receive using the Morse  
> Code. The first phase is to learn the 40 characters. The second phase is  
> to  
> learn how to copy the characters quickly so you can do it at a rate of 5  
> words a minute. The third phase is learning to do it much faster which  
> requires that you train yourself to convert a Morse code character heard  
> by  
> your ear to a written character on paper automatically. At all Effective  
> Code Speeds below 15 words per minute (WPM) use the Farnsworth method and  
> use the Actual Character Speed of 15 words per minute, but select the  
> proper  
> Effective Code Speed. The source of the Morse Code is the Koch version 5  
> software from G4FON. With this software you can select how many different  
> characters are sent and their speed. You can download this software from  
> [www.qsl.net/g4fon/](http://www.qsl.net/g4fon/).  
>  
> Phase One:  
>  
> After we learn to use the Koch software, each of us will set up our  
> software to send 2 characters at 3 words per minute. This will be very  
> easy.  
> Then we will send 4 characters at 3 word per minute. This begins to get  
> difficult. When you find that you are able to copy 90% of the characters  
> correct add another character.  
>  
> When you reach about 20 characters it is most difficult. Let me say  
> here that your LEARNING. And learning is difficult for all but the few  
> genius's among us.  
>  
> When you are using 40 characters at 3 words a minute and getting 90%  
> of them right, you are done with phase one.  
>  
>  
> Phase Two:  
>  
> Now set the word per minute to 5 wpm. Be certain that you don't have  
> my paper with A=dit dah on it in sight because now it's too fast to hear  
> the  
> sound, glance at the paper, and write it down. At this speed you must  
> simply  
> hear the Morse code, in your head convert it to an English character and  
> write it down.  
>  
> Practice until you can copy over 90% of the characters correct. You

> are done with phase two, and you can pass the amateur radio code test.  
>  
>  
> Phase Three:  
>  
> At this point you can copy 5 words per minute and you may want to  
> copy at faster speeds. This is done by learning. It is just like phase  
two.  
> You simply set Koch to 7 words per minute and copy it until your getting  
90%  
> of the characters right. Then up the speed 2 words per minute until you  
> reach the speed you desire.  
>  
>  
> How to Copy Code:  
>  
> In this class we will write down all the morse code we hear. So  
> always have paper and a pencil or pen. Make a 5 minute run and do this: If  
> you know what the character is write it down, if you can't think what it  
is  
> draw a short line indicating you missed one.  
>  
> When you grade your paper look at what Koch sent and locate those  
> characters you missed. If necessary look at your Code List and find out  
what  
> the morse code sounds like.  
>  
>  
> Time:  
>  
> How long is phase one? It depends on you and how long you study each  
> day. If your committed and spend 30 quality minutes every day, you should  
be  
> done in 7 days. If you don't study, or do so "off and on", you can spend  
30  
> days! Phase two is faster. With study it will take 5-7 days. Your now  
ready  
> to take the test.  
>  
> If your done with phase two and have some free time, I suggest going  
> to phase three and get as far as you can before the end of class.  
>  
>  
> So hope this explains my position. And History tells us a lot.  
>  
> --  
>  
> - Karl Larsen k5di Las Cruces,NM Az ScQRPions -

>

-----  
Date: Mon, 2 Feb 2004 22:16:20 -0500  
From: "George Heron N2APB" <n2apb@clearviewcatv.net>  
To: "QRP-L" <qrp-l@Lehigh.EDU>  
Cc: <n1bq\_list@wulfden.org>  
Subject: [166905] Re: DDS Daughter Card for by PIC-EL  
Message-ID: <006b01c3ea04\$1a551c20\$6400a8c0@n2apb1>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="Windows-1252"  
Content-Transfer-Encoding: 7bit

Hi Brian -

1) re R4 -- Just as the note says on the schematic, choose the right resistor for the voltage you will be using to drive the PIC-EL board. You can use 12.0 volts and still have acceptable Vpgm voltage, so if you will be using a battery to power the board (such as I do on my own bench), the R4 bias resistor to use for 12V supply would be the 510-ohm resistor. But if you'll be powering it with your station supply (which is often around 13.5V), just use the 620-ohm resistor for R4.

2) re C13 -- Funny, nobody's mentioned this so far and I hadn't noticed the silkscreen discrepancy! You got four 0.1 uF caps in the kit and there are four places to use them on the board: two for MAR-1A amp input and output coupling (C6 and C7), and two for bypassing the voltage regulator (C10 and C13). Thus, C9 on the schematic and in the parts list should be corrected to read 'C13'. Sorry about that, I'll add this to the Builder's Notes page.

3) re Jumper E-F -- The jumper should be at E-F if you want the RF output to be available on P1 pin 6 (as it is expected for the PIC-EL board). The photo I happened to take of the DDS Daughtercard was for an output on P1 pin 7 ... which is the output I happened to be using at that time, well before the PIC-EL board was invented. Sorry for the confusion. Use Jumper position E-F for use of the DDS card in the PIC-EL board.

73, George N2APB

-----  
Date: Mon, 2 Feb 2004 22:33:28 -0500 (EST)



From: <w9ya@arrl.net>  
To: <qrp-1@Lehigh.EDU>  
Subject: [166906] Re: Koch method of learning  
Message-ID: <1164.192.168.1.117.1075779208.squirrel@gateway>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=iso-8859-1  
Content-Transfer-Encoding: 8bit

>  
> I re-read chapter 29 of the book and digested what was there in  
> a far different light than George W5YR and others do. I'm a student of  
> history. In 1936 in Germany Hitler was in power since 1934 and some  
> terrible things were happening. The average German has been in poverty  
> for 15 years and ANY job is a gift from God.  
>  
> In this light Koch was told to study how men learned the morse  
> code (German type). He had some students and some working morse code  
> experts. His students were promised that if they could get to 25 WPM  
> they could get great paying jobs!

Hey Karl and the gang;

Could you be so kind as to tell me where in chapter 29 it said that the students were without jobs and promised same if they passed or completed training to 25 wpm? I must have missed that part.

The part I do remember from chapter 19 of Bill's book is that Koch's students all had jobs and were studying this in addition to their jobs on normal working days in the evenings.

(Anyways, I rather think that a productive goal (a promised job) enhances ones learning, and that may be a good thing ! Hi Hi)

Very best regards;

Bob  
w9ya

>  
> He found that if he sent code at character rates less than 12  
> WPM the experts could not copy it. He also found that if he sent the  
> characters at 12 WPM and slowed the code rate to 5 wpm, the experts  
> could copy fine.  
>  
> He had 4 experts 3 of which learned the code from sound and one  
> who learned using printed charts and such. He found they guy who used  
> the printed charts was marginal at 25 WPM!  
>

> Koch says ABSOLUTELY introduce one character at a time, ALONG  
> with all those already learned. He found that a 30 minute session was  
> the untimate study time. He said start at 12 WPM but have 20-30 days to  
> complete the training. This needs two 30 minute study periods every day.

>  
> His students were very interested in succeeding because they  
> would qualify for a good job. My students are trying to get a General  
> Ham license. They know they can wait a few months and not need the code.

>  
> I have 14 days to get my students to 5 WPM. So this is MY way to  
> get this done.

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> Here is my latest paper for the students:

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>  
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> There are 3 phases in learning to send and receive using the Morse  
> Code. The first phase is to learn the 40 characters. The second phase is  
> to learn how to copy the characters quickly so you can do it at a rate  
> of 5 words a minute. The third phase is learning to do it much faster  
> which requires that you train yourself to convert a Morse code character  
> heard by your ear to a written character on paper automatically. At all  
> Effective Code Speeds below 15 words per minute (WPM) use the Farnsworth  
> method and use the Actual Character Speed of 15 words per minute, but  
> select the proper Effective Code Speed. The source of the Morse Code is  
> the Koch version 5 software from G4FON. With this software you can  
> select how many different characters are sent and their speed. You can  
> download this software from [www.qsl.net/g4fon/](http://www.qsl.net/g4fon/).

>  
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> After we learn to use the Koch software, each of us will set up our  
> software to send 2 characters at 3 words per minute. This will be very  
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> to get difficult. When you find that you are able to copy 90% of the  
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> When you reach about 20 characters it is most difficult. Let me say  
> here that your LEARNING. And learning is difficult for all but the few  
> genius's among us.

>  
> When you are using 40 characters at 3 words a minute and getting 90%  
> of them right, you are done with phase one.

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> Now set the word per minute to 5 wpm. Be certain that you don't have  
> my paper with A=dit dah on it in sight because now it's too fast to hear  
> the sound, glance at the paper, and write it down. At this speed you  
> must simply hear the Morse code, in your head convert it to an English  
> character and write it down.

>  
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> are done with phase two, and you can pass the amateur radio code test.

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>  
> Phase Three:

>  
> At this point you can copy 5 words per minute and you may want to  
> copy at faster speeds. This is done by learning. It is just like phase  
> two. You simply set Koch to 7 words per minute and copy it until your  
> getting 90% of the characters right. Then up the speed 2 words per  
> minute until you reach the speed you desire.

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>  
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> always have paper and a pencil or pen. Make a 5 minute run and do this:  
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> it is draw a short line indicating you missed one.

>  
> When you grade your paper look at what Koch sent and locate those  
> characters you missed. If necessary look at your Code List and find out  
> what the morse code sounds like.

>  
>  
> Time:

>  
> How long is phase one? It depends on you and how long you study each  
> day. If your committed and spend 30 quality minutes every day, you  
> should be done in 7 days. If you don't study, or do so "off and on", you  
> can spend 30 days! Phase two is faster. With study it will take 5-7  
> days. Your now ready to take the test.

>  
> If your done with phase two and have some free time, I suggest going  
> to phase three and get as far as you can before the end of class.

>  
>  
> So hope this explains my position. And History tells us a lot.

>  
> --  
>

> - Karl Larsen k5di Las Cruces,NM Az ScQRPions -

-----  
Date: Mon, 2 Feb 2004 23:19:51 -0500  
From: "George Heron N2APB" <n2apb@clearviewcatv.net>  
To: "QRP-L" <qrp-l@Lehigh.EDU>, "NJQRP" <njqrp@njqrp.org>  
Subject: [166907] PIC-EL: Don't overheat SPKR leads  
Message-ID: <00f601c3ea0c\$f949b410\$6400a8c0@n2apb1>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

An important caution to PIC-EL builders ... be very careful not to overheat the leads for speaker SPKR when attaching it to the pc board.

The plastic body of this part is really thin and has a low melting point, so if the pads are heated for an extended amount of time there's a good chance the speaker body will "sink onto" the leads on the inside, thus losing electrical connection with the internal speaker element.

This would be especially true if you are pushing the device down while soldering the leads to the pad. It would be *\*really\** true if you are trying to remove the speaker for some reason by pulling the device while heating the pads.

We only have a handful of extra speakers and cannot replace or even sell them to those who request it. Sorry. We only had 500 of these nifty little speakers, which was thought to be enough when we started the project. We had no idea the PIC-EL response and excitement would be as great as it is. We're going to another part for the next round and we can make extras available from this next batch within a couple of weeks if yours goes south. We'll publish the part number of whatever we find. [Anyone have a good lead on a suitably-sized mini speaker?]

A makeshift speaker to use during the interim can be most any mini "real" speaker, such as from an old modem card, telephone or even a 2" speaker from a kid's walkie talkie. A "piezo" device than many of us are familiar with won't have the frequency response that a speaker has, so you'd only be able to hear beeps made at about 4 kHz.

73, George N2APB  
for the PIC-EL Design Team

-----  
Date: Mon, 2 Feb 2004 23:38:33 -0500  
From: "George Heron N2APB" <n2apb@clearviewcatv.net>  
To: "QRP-L" <qrp-l@Lehigh.EDU>  
Subject: [166908] Re: DDS Daughter Card for by PIC-EL  
Message-ID: <010801c3ea0f\$95962540\$6400a8c0@n2apb1>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="Windows-1252"  
Content-Transfer-Encoding: 7bit

Okay, let me correct my correction and try not to confuse me again ...

re C13 -- The issue is that there are only four 0.1 uF capacitors supplied in the kit, yet there are six locations to be filled. We've stated for a long time that the C8 spot on the board should remain empty and that we don't supply that one. The four spots that *must* be filled are C6, C7, C9 and C10. Apparently there's always been a shortage for the voltage regulator spot on the back (C13) and nobody's ever noticed or mentioned it. It's only for power supply bypass and apparently hasn't caused a problem thus far. So you can just leave that one empty too (just like the empty spot for C8).

If anyone is worried about not having this capacitor in place, let me know and we'll get one to you. However it will not cause a problem if it's missing.

Sorry for the confusion.

73, George N2APB

-----  
Date: Mon, 2 Feb 2004 22:39:47 -0600  
From: "Lew Paceley" <lew@paceley.com>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [166909] Re: DDS Daughter Card for by PIC-EL  
Message-ID: <001701c3ea0f\$c2a7ed20\$6501a8c0@swbell.net>

MIME-Version: 1.0  
Content-Type: text/plain;  
charset="Windows-1252"  
Content-Transfer-Encoding: 7bit

Hi George,  
Re the DDS daughtercard instructions:

QRP-L Post:  
"2) re C13 -- Funny, nobody's mentioned this so far and I hadn't noticed the silkscreen discrepancy! You got four 0.1 uF caps in the kit and there are four places to use them on the board: two for MAR-1A amp input and output coupling (C6 and C7), and two for bypassing the voltage regulator (C10 and C13). Thus, C9 on the schematic and in the parts list should be corrected to read 'C13'. Sorry about that, I'll add this to the Builder's Notes page"

I'm confused. Are you saying that C13 on the rear of the DDS board is the same electrical connection as C9 on the front? The instructions on page 3, center column, first paragraph explicitly say C13 on the back is not used.

If C13 on the back of the board is to be used for the .1uF cap instead of C9 then what goes in C9? I didn't have any spare parts when I was through ;-)

Thanks es

72/73,  
\*Lew\*  
N5ZE

-----  
Date: Mon, 2 Feb 2004 23:43:20 -0500  
From: "George Heron N2APB" <n2apb@clearviewcatv.net>  
To: "QRP-L" <qrp-l@Lehigh.EDU>  
Subject: [166910] Re: DDS Daughter Card for by PIC-EL  
Message-ID: <011601c3ea10\$405f4e70\$6400a8c0@n2apb1>  
MIME-Version: 1.0

Content-Type: text/plain;  
charset="Windows-1252"  
Content-Transfer-Encoding: 7bit

And one last point, only as a face-saving comment ... There is a note in the instruction sheet that comes with the daughtercard, " NOTE: Capacitor C13 on the back side of the board is not used."

73, George

PS: I've got to stop typing in the midnight hour, as my brain obviously disengages then. (Thanks for the help in straightening this out Rich.)

-----  
Date: Mon, 2 Feb 2004 22:53:53 -0600  
From: "rattray" <rattray@accesscomm.ca>  
To: "QRP-C" <qrp-canada@neale.gpfn.sk.ca>, "QRP-L" <qrp-l@Lehigh.EDU>  
Subject: [166911] Fox - Fox Hunt Team Results...  
Message-ID: <000001c3ea11\$bc33f090\$7900a8c0@Bonnie>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="us-ascii"  
Content-Transfer-Encoding: 7bit

Hunt # 27 - K0UU -

QRP Cheeseheads - 92

Jerry - N9AW  
Rick - NK9G  
Gary - W9XT  
Lon - W9XU  
Jim - WA9TZE \*

Cajun Thunder - 86

Wayne - K5EOA \*  
Wayne - N5YFC  
Vern - AA50 \*  
Jim - N5IB  
Chris - KD5UDB \*

The Underdogs - 87

Dan - N4ROA  
Dennis - N4DD  
Bob - KB2FEL  
Dave - W0CH  
Ron - KI0II \*

Team Air Pork - 57

Wayne - K9DI  
Mike - KD5KXF  
Dave - AG4PJ \*  
Randy - W9HL  
Jerry - N0JRN

Raiders of the Lost RF - 47

The NE-TX Tornados - 108

Rob - VE6JAZ	Bill - K5JHP *
Craig - VE4WI	Don - K5DW * Clean
Fred - VE3FAL	Doc - W5TB * Sweep
Earl - VA6RF	Lew - N5ZE *
Bruce - VE5RC	George -W5YR *

...please e-mail me direct with corrections, changes...tnx....

...72/73 - Bruce (VE5RC+VE5QRP) QRP-C#1 QRP-L#886 ARCI#9683 Zombie#272  
A-1 Operator Club - 10/10# 944 - QRP Borg#1 - Whiner#10 -  
- VE5QRP SOC#11 - VE5RC SOC#12 - oo#148 - K2#2032 - COG#15 -  
"QRP! How sweet it is!" "I am da man wit "DAH" paddle!"

-----  
Date: Mon, 2 Feb 2004 22:59:38 -0600  
From: "ratray" <ratray@accesscomm.ca>  
To: "QRP-C" <qrp-canada@neale.gpfn.sk.ca>, "QRP-L" <qrp-l@Lehigh.EDU>  
Subject: [166912] Fox - Fox Hunt Team Results...  
Message-ID: <000101c3ea12\$897c1ff0\$7900a8c0@Bonnie>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="us-ascii"  
Content-Transfer-Encoding: 7bit

Hunt # 28 - K0PC -

QRP Cheeseheads - 92

Cajun Thunder - 89

Jerry - N9AW

Wayne - K5EOA \*



Rick - NK9G  
Gary - W9XT  
Lon - W9XU  
Jim - WA9TZE

Wayne - N5YFC  
Vern - AA50 \*  
Jim - N5IB  
Chris -KD5UDB \*

The Underdogs - 88

Team Air Pork - 59

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Dennis - N4DD  
Bob - KB2FEL  
Dave - W0CH  
Ron - KI0II \*

Wayne - K9DI  
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Lew - N5ZE \*  
George -W5YR \*

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- VE5QRP SOC#11 - VE5RC SOC#12 - oo#148 - K2#2032 - COG#15 -  
"QRP! How sweet it is!" "I am da man wit "DAH" paddle!"

-----  
Date: Tue, 03 Feb 2004 01:33:44 -0500

From: PMdc361@aol.com  
To: qrp-l@lehigh.edu  
Subject: [166913] TNX  
Message-ID: <5ACED402.18297AC4.0017E976@aol.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=iso-8859-1  
Content-Transfer-Encoding: 8bit

Thanks to all who have responded to my call for help. I now have to required parts enroute.....will do my best to get contacts to all my fellow QRPers even if I have to turn the power up.....Unfortunately this is in the null period of the sun cycle.....over

--

73 ditdit,

Dwayne YI9RVT/KE4RVT  
Al Kut, Iraq  
N33.29 E45.45  
FPQRP #85  
QRP-L #2201  
KX1 S/N 0337

Sometimes a little brain damage can help. (George Carlin)

-----

Date: Tue, 3 Feb 2004 08:01:25 -0000  
From: "Ray Goff" <radioham@gmx.co.uk>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [166914] RE: Koch method of learning  
Message-ID: <ACEBKECEJKBMLBLMPOHJGEFKDAAA.radioham@gmx.co.uk>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="us-ascii"  
Content-Transfer-Encoding: 7bit

Gentlemen,

I have been sitting on the sidelines watching this thread with interest.

My Koch software, which is mentioned sporadically in the thread was originally written to implement the Koch method of teaching down to the last letter of David Finley's description. It was only when a number of emails from users made me realised that the software was being used to pass the 5 WPM test that I added the Farnsworth style spacing options.

It seems to me that the choice of learning method depends on the student's goal.

If they are only planning to learn enough code to pass the 5 WPM test, then use my software any way that you like to get past the test, but DO NOT CALL IT THE KOCH METHOD as it most certainly is not! In fact you could recommend Code Quick or any similar approach because at the end of the day it does not matter.

If, on the other hand, the student has ANY thought that he/she might want to become an active CW operator, then use my software to implement the Koch method of learning AND TOTALLY FORGET ABOUT FARNSWORTH SPACING. Basically, choose your target speed and set the trainer for that speed, next start with two characters and ONLY advance when you reach at least 90% (it has been suggested to me that 95% is a better figure) proficiency with the current set of characters.

Once you have learned soundalikes or any other visual clues, breaking that habit is almost impossible. I originally passed my 12 WPM test in 1976, used the code for a couple of years and then put amateur radio on the back burner. When I came back in 1998, I discovered the David Finley article and implemented my software to teach myself the code again. My original Elmer, back in 1975/76, knowing that I had trouble with H, suggested the soundalike 'did it hit it'. Even after my approx 20 year break, my brain still remembered it! Even today, when I feel that I can copy a QSO at 25-30 WPM and contest at around 35-40 WPM, 'did it hit it' still jumps into my consciousness from time to time and I am finding it almost impossible to break myself of that habit - it is deadly.

So my simple stance on learning the code is 'decide how you plan to use it'. If it is simply to pass the test, use any method you can to get to 5 WPM, but if you plan to use the code after you have learned it, use the Koch method as defined by Koch and described by David Finley or chapter 29 of The Art and Skill of Radio Telegraphy by N0HFF (SK) and do the job properly.

It takes time and dedication to learn the code at a reasonable speed, but I firmly believe that the Koch method can do it faster than any other method, BUT ONLY IF YOU FOLLOW IT EXACTLY.

73

Ray, G4FON

-----  
Date: Tue, 3 Feb 2004 06:16:33 +0000  
From: John R Kirby <n3aaz-qrp@juno.com>  
To: qrp-l@Lehigh.EDU  
Subject: [166915] PIC-EL Encoder, A Lesson Assignment  
Message-ID: <20040203.061645.-256089.0.n3aaz-qrp@juno.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Hay, rather than busy up Elmers with such a minor thing. . .

How about we (students) take a lesson assignment and solve this 'bounce' problem?

What is my attempt at a solution ?  
Based on qrpl net traffic,  
the problem is not 'noise' . . . so . . .

IF the 'apparent' problem is that  
"twice the value rolled on the 'dice is sent to the display" . . .  
THEN wonder what would happen if I  
divide by TWO (one right shift) before  
passing the 'dice onto the next step.

N3AAZ  
FM 19 xa

-----  
The best thing to hit the Internet in years - Juno SpeedBand!  
Surf the Web up to FIVE TIMES FASTER!  
Only \$14.95/ month - visit [www.juno.com](http://www.juno.com) to sign up today!

-----  
Date: Tue, 3 Feb 2004 08:12:46 -0500  
From: "John J. McDonough" <wb8rcr@arrl.net>  
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>  
Cc: <n3aaz-qrp@juno.com>  
Subject: [166916] Re: PIC-EL Encoder, A Lesson Assignment  
Message-ID: <003901c3ea57\$6ad00d60\$090044c0@BrianBoru>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

That sounds like a good plan. However, before you dig too deep, a few things you should know.

First, the encoder code in T-PICEL was aimed at a different encoder that we thought we were going to use. This thing had way more noise than anything I've ever seen, plus it wasn't a true gray code encoder. The encoder code in T-PICEL could probably be a third the size it is with the real encoder.

Secondly, in responding to another email I noticed that some of the delay

routines, which I have carried on from project to project, have times that are nothing like what is indicated in the comments. For example, the debounce routine calls a routine that claims to have a 1.7 ms delay, but a quick back of the envelope seems to indicate something more like 18 ms. Now to tell the truth, with most of the encoders I've seen, you could get away with a couple of microseconds here, so the problem of getting ahead of the code could be easily solved. But the approach is probably to use a different delay routine, maybe even wastePW instead of wastel, rather than fix the one that is used, since these routines tend to get used in a lot of places. In particular you could mess up the LCD code which can be a little messy to debug.

Now dividing by two so the transitions don't occur within detents isn't a really tough problem, but it has some non-obvious characteristics to it <g>

72/73 de WB8RCR      <http://www.qsl.net/wb8rcr>  
didileydadidah      QRP-L #1446 Code Warriors #35

----- Original Message -----

From: "John R Kirby" <n3aaz-qrp@juno.com>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Sent: Tuesday, February 03, 2004 1:16 AM  
Subject: PIC-EL Encoder, A Lesson Assignment

>  
> Hay, rather than busy up Elmers with such a minor thing. . .  
>  
> How about we (students) take a lesson assignment and  
> solve this 'bounce' problem?  
>  
> What is my attempt at a solution ?  
> Based on qrpl net traffic,  
> the problem is not 'noise' . . . so . . .  
>  
> IF the 'apparent' problem is that  
> "twice the value rolled on the 'dice is sent to the display" . . .  
> THEN wonder what would happen if I  
> divide by TWO (one right shift) before  
> passing the 'dice onto the next step.  
>  
> N3AAZ  
> FM 19 xa  
>  
> -----  
> The best thing to hit the Internet in years - Juno SpeedBand!  
> Surf the Web up to FIVE TIMES FASTER!  
> Only \$14.95/ month - visit [www.juno.com](http://www.juno.com) to sign up today!

>

-----  
Date: Tue, 3 Feb 2004 06:22:34 -0700  
From: "SteveG" <n0tu@codenet.net>  
To: "QRP-L" <QRP-L@lehigh.edu>  
Subject: [166917] Prep for FYBO '04  
Message-ID: <008301c3ea58\$c9733c60\$6a211d82@agilent.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="Windows-1252"  
Content-Transfer-Encoding: 7bit

Hey Gang, Been off doing chasing other hobbies for a while. But recently got the QRP bug again and built a KX1 in prep for FYBO my post to the Elecraft list is below. So I'm back! Hope to work alot of my old QRP buddies this weekend! Listen for a shakey fist from freezing CO.

72 Steve/n0tu

-----  
-----  
HI Gang, Had a blast with newly assembled KX1 on Mt. Herman/CO inspite of freezing temps and a little snow. Friday my KX1's new final PA silicon arrived (I'd zapped the last one while probing it!). I installed it on Saturday morning over a cup of mud. It seemed this PA was putting out a little more RF than last Q6! WooHoo! Sunday hoofed up the old Mt. Herman but wasn't alone as I saw some huge cougar paw prints in the snow. Gave me the feeling I'd better keep a sharp lookout and the critter repellent handy (pepper spray)?! KX1 performed flawlessly! Antenna went up zip zip ... Used a 26' wire & one 17' radial. made up a BNC with alligator clips to facilate wire attachment. ATU tuned up FB 1.2 VSWR on 20m. Actually I spent more time looking for a silly rock in the snow to use as a throw! Next time I'll bring a weight to throw!! Something about adding a weight to my pack!?

<http://users.codenet.net/n0tu/images/FYB004/crummyVIEW.jpg>

Using the internal Lithium batteries the KX1's ouput was a little over 1 watt on 20m. Which makes it a little more challenging to snag a contacts but with a good antenna and location (9,000' ASL) it shouldn't be a problem. Seems I had a path into the NW! (in this case broadside to my wire which was sloping NE 45\* to a Ponderosa tree top) First contact was K7FD/John in Seal Rock, OR - John who was busting my eardrums with his long wire and K2 at 5W sounded like a KW! Radio conditions were hot although WX conditions on Herman were looking like snow was approaching any minute. Next I heard Bill/N7OU Lake Oswego, OR - He also was on his KX1(sn385 mine is sn383!) at 3W. So we discussed KX1s and paddles until it started snowing and my fingers were too numb to send code! We were chatting about the fact the KX1 is like

a shrunk K2 or more likely the K1! BTW I liked having my paddlette on my knee where I could shelter my hand from the snow (had I brought another ski hat) But I'm still considering the KX1's paddle option?

<http://users.codenet.net/n0tu/images/FYB004/KX1%20wK0SS.jpg>

No sooner I signed off with Bill faining numb fingers, the sun was warming my digits for one more run at he paddle. "Can't quit now, dude!", says I! I gave one more CQ, Boom! Back comes Don/W7GB in Moses Lake, WA

So we went at it for a while. Don was on his K1 at 5W with 3-element yagi - great signal from a 'warm' shack. Finally the snow strom arrived in all it's

furry - signed with Don, jerked down my antenna (love that KX1's ATU!! really simplifies field antenna issues!) with numb fingers (this time it was no joking about cold hands) threw all in my pack scurried down the MT. Keeping an eye to my back side occasionally for Mr Cougar! Looks like the KX1 passed the test and is ready for more of what mother nature can throw at it!

<http://users.codenet.net/n0tu/images/FYB004/n0tuLUNCH.jpg>

Best part is at the end of the day is the KX1 is breeze to setup w/ATU and a couple wires -- It makes "miles-from-no-where-communication without cell service" a reality [service provider is good old ma nature - the ionosphere!]

Cheers, Steve/n0tu - KX1#383

-----  
Date: Tue, 3 Feb 2004 08:51:30 -0500 (EST)

From: <n2go@arrl.net>

To: <qrp-1@Lehigh.EDU>

Subject: [166918] DDS Daughter board?

Message-ID: <Pine.LNX.4.33.0402030846090.18420-100000@valhalla.v>

MIME-Version: 1.0

Content-Type: TEXT/PLAIN; charset=US-ASCII

I don't know if anyone else noted this. After the Pic e1 goes through the test routine for the DDS, 7040,41,42, it seems to put out a signal at 7042. This continues until the test suite/siute cycles through to transmit. At this point the 7042 signal stops. The signals get generated again when DDS appears on the LCD. I didn't notice the above until I put a frequency counter on the BNC. I missed it when I used the receiver to

listen for the code. Is this a coding thing or is my unit busted ?

73,

Jim n2go

-----  
Date: Tue, 3 Feb 2004 09:06:55 -0500  
From: "w8diz\_qrpl\_2" <w8diz\_qrpl\_2@partsandkits.com>  
To: <qrpl-1@Lehigh.EDU>  
Subject: [166919] AVR-DEV Update  
Message-ID: <005e01c3ea5e\$fb3de9b0\$6601a8c0@cinci.rr.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
          charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Hi Gang,

All ordered AVR-DEV kits will ship today, including the overseas orders which may include the AVRISP programmer.

If you have not done so, please join the group list at  
<http://groups.yahoo.com/group/AVR-DEV>  
All future correspondences will only be via the yahoo reflector.

72 & "oo's" - Dieter (DIZ) Gentzow - W8DIZ - Loveland, Ohio  
Clermont County - EM79uf - near Cincinnati; 39:13:05N 84:18:18W  
RIG:multiPIG+ ANT:67 FT Vertical Dipole <http://kitsandparts.com>

Hi Gang,

Now that many of you are into the PIC learning kit from WB8RCR, some of you may want to try your hand with an ATMEL AVR micro.

I have put together an AVR Development kit complete with beginners instructions to get you started. The kit starts out doing simple things like making LEDs blink in a controlled manner and culminates with a fully functional DDS signal source using a rotary encoder. Also included are a backlit 16x2 LCD and a standard telephone keypad. The PCB is a 2.5 x 3.8 inch double sided with plated through holes. All parts are included, with the AD9835 DDS chip preinstalled. Sockets are also included for the AT90S2313 micro and the MAX232 chip.

The only thing you will need is a programmer which is available from DIGIKEY for less than \$30. This device will program all currently



available AVR micros from ATMEL. If there is a demand, there will be a second kit in the future using an ATmega16 micro. The ATmega16 has many more I/O lines and more memory than the AT90S2313. The programmer will also be used for that micro. More info is available on the website.

Over the next few months, we will be adding more software routines to the kit via the web page. Kit builders are encouraged to submit their code for publication so others can share via the web site.

Kits will begin shipping in 6 days on Feb 2nd.

All details are available at <http://partsandkits.com/avr-dev.asp>

Thanks go to Jay Henson, Mikey Hall, Dennis Ponsness, Michael McCarty, Ken Evans and Hubert Smits for kit suggestions. Also a special thanks to Steve "melt solder" for the AD9835 subroutine.

-----  
Date: Tue, 03 Feb 2004 07:20:50 -0700  
From: Dan Tayloe <dtayloe@cox.net>  
To: qrp-l@Lehigh.EDU, k5di@zianet.com  
Subject: [166920] Re: Signal plus Noise to Noise ratio  
Message-ID: <401FAE42.8CE00687@cox.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

If you can measure the noise, then the signal+noise, and the signal is a known weak level, then you should be able to calculate the noise level in your receiver and the MDS sensitivity. The receiver MDS ought to be the same level as the measured receiver noise.

Just make sure the AGC is off when making the measurement.

- Dan, N7VE

-----  
Date: Tue, 3 Feb 2004 09:44:49 -0500  
From: "John J. McDonough" <wb8rcr@arrl.net>  
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>  
Cc: <n2go@arrl.net>  
Subject: [166921] Re: DDS Daughter board?  
Message-ID: <002001c3ea64\$48076820\$090044c0@BrianBoru>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Jim

Now that you mention it, I don't recall ever telling the DDS to shut up.

72/73 de WB8RCR      <http://www.qsl.net/wb8rcr>  
didileydadidah      QRP-L #1446 Code Warriors #35

----- Original Message -----

From: <n2go@arrl.net>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Sent: Tuesday, February 03, 2004 8:51 AM  
Subject: DDS Daughter board?

> I don't know if anyone else noted this. After the Pic e1 goes through the  
> test routine for the DDS, 7040,41,42, it seems to put out a signal at  
> 7042. This continues until the test suite/siute cycles through to  
> transmit. At this point the 7042 signal stops. The signals get generated  
> again when DDS appears on the LCD. I didn't notice the above until I put a  
> frequency counter on the BNC. I missed it when I used the receiver to  
> listen for the code. Is this a coding thing or is my unit busted ?  
>  
> 73,  
>  
> Jim n2go  
>  
>

-----  
Date: Tue, 03 Feb 2004 09:53:21 -0500  
From: "Brian Riley (maillist)" <n1bq\_list@wulfdan.org>  
To: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>  
Subject: [166922] MPLAB CDs Flying Through the Mail!  
Message-ID: <BC452011.1E868%n1bq\_list@wulfdan.org>  
Mime-version: 1.0  
Content-type: text/plain; charset="US-ASCII"  
Content-transfer-encoding: 7bit

I have mailed 16 CDs out since yesterday morning ... Everyone who has requested a CD prior to 0900 or so Tuesday morning should see theirs shortly.

Now that the PIC-El's are out there seems to be more interest. But I am

seeing an end to what had been a big stack of CD mailers I have and I need to figure if and how many more to order (my mail order supplier is half the price that Staples wants, but it takes a week to arrive UPS Ground!) So if you are thinking you want the MPLAB stuff let me know sooner rather than later.

cheers ... 73 de brian, n1bq

On 2/1/04 10:40 PM, "Brian Riley (maillist)" <n1bq\_list@wulfden.org> wrote:

> If there are any of you who still need MPLAB. I downloaded the new MPLAB  
> v6.41 and added it to the CDRom offerings as well as all lessons 1-8 and 10,  
> the FPP program and its associated drivers, and about 25 Mbytes of Microchip  
> documentation and datasheets.  
>  
> Just email me your address and I will ship it to you right away, then when  
> you get a chance send me \$3 USD (USA) , \$5 CDN (Can), or \$5 USD (elsewhere)  
>  
> Brian Riley, N1BQ  
> PO Box 188  
> Underhill center, VT 05490  
>  
>

-----  
Date: Tue, 3 Feb 2004 09:01:43 -0600  
From: "Donald Dorn" <DDORN@CWIS.NET>  
To: "Low Power Amateur Radio" <QRP-L@LEHIGH.EDU>  
Subject: [166923] FS FT 2400 H  
Message-ID: <000501c3ea66\$a465bac0\$3b182641@computer>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

For sale: Yaesu 2 Meter transceiver. 5/25/50 watts. I bought this rig new several years ago and just don't use it. It probably hasn't been keyed more than a dozen times and has been on a shelf in my garage for the past three years. I hooked it up this morning and it still works fine.

With mike, mobile mount and owners manual.

\$60.00 plus 5.00 shipping to Conus.

Don K5AAR  
McIntosh County, Ok

-----  
Date: Tue, 3 Feb 2004 07:07:30 -0800  
From: "john gabbard" <johngabbard@usintouch.com>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [166924] relay needed  
Message-ID: <000501c3ea67\$7253ee20\$46811c0c@john>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

I am looking for a small (11/2") Mercury wetted relay to replace the original one in my HW8.it needs to be 12v. ThanksJohn   KF7OM

-----  
Date: Tue, 03 Feb 2004 11:45:37 -0500  
From: Steven Weber <kd1jv@moose.ncia.net>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [166925] Re: PIC-EL Encoder, A Lesson Assignment  
Message-ID: <3.0.6.32.20040203114537.007b37f0@mailhost.ncia.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

>First, the encoder code in T-PICEL was aimed at a different encoder that we  
>thought we were going to use. This thing had way more noise than anything  
>I've ever seen, plus it wasn't a true gray code encoder.

You could try putting a .1u or .01u cap across the encoder outputs, if they aren't already there. They often help clean up sticky debounce problems.

72,  
Steve, KD1JV  
"Melt Solder"  
White Mountains of New Hampshire  
<http://www.qsl.net/kd1jv/>

-----  
Date: Tue, 3 Feb 2004 10:53:57 -0600  
From: "Donald Dorn" <DDORN@CWIS.NET>  
To: "Low Power Amateur Radio" <QRP-L@LEHIGH.EDU>

Subject: [166926] FT 2400H XCVR SOLD  
Message-ID: <003c01c3ea76\$6a072700\$35182641@computer>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Thanks for all the response. The rig is sold.  
73,  
Don K5AAR

-----  
Date: Tue, 3 Feb 2004 12:39:10 -0500  
From: "John J. McDonough" <wb8rcr@arrl.net>  
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>  
Subject: [166927] Re: PIC-EL Encoder, A Lesson Assignment  
Message-ID: <001801c3ea7c\$a36cb2c0\$090044c0@BrianBoru>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

----- Original Message -----  
From: "Steven Weber" <kd1jv@moose.ncia.net>  
Subject: Re: PIC-EL Encoder, A Lesson Assignment

> You could try putting a .1u or .01u cap across the encoder outputs, if  
they  
> aren't already there. They often help clean up sticky debounce problems.

They're there. The original encoder was pretty unique. The one that ended  
up shipping is a little more typical.

72/73 de WB8RCR      <http://www.qsl.net/wb8rcr>  
didileydadidah      QRP-L #1446 Code Warriors #35

-----  
Date: Mon, 2 Feb 2004 15:34:31 +0100  
From: "Juanjo Pastor" <ec5aca@wanadoo.es>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [166928] HW8 and WTB one  
Message-ID: <002701c3ea7f\$87afd6e0\$5f45523e@ec5aca>  
MIME-Version: 1.0

Content-Type: text/plain;  
charset="Windows-1252"  
Content-Transfer-Encoding: 8bit

Hello again,

Last saturday's night I went to La Eliana in my way to spend some time with my friends' group and popped into Manel, EA5ADE. He owns a nice Heathkit HW8 and I asked him to lend it to me for a week. Some months ago, Dani, EA5AAY -ex EC5AMG-, lent me one of his pair of HW7 and its receiver was dreadful: a broadcasting receiver tuned by the preselector variable capacitor in which CW could be heard deep below in the background... The HW8 is indeed another beast: yes, it is a DC transceiver, but at least there is no overwhelming broadcast stations in the foreground during daylight hours. There are traces in the upper bands (20 and 15 meters) but that's easily circumvented with the RF gain control. I still have to test it during the nights with the strong 41 meter broadcasting stations around... I had a nice 2 x QRP QSO with IK5SRD in 14.060 before lunch, it seems very stable and be working fine...

I would like to own a HW8 myself, but I have not much money lately as I am "on the dole" jobless. I also have a friend (EB5JNA-EC5ABG, Toni in Genov s) who would like to purchase one as cheap as possible, problem rig OK but with any mods well documented and the front panel as good looking as possible. His address is eb5jna@wanadoo.es but send me a copy only in case he does not understand english as well as me... Hope to hear from you and your offers soon...

73, 72 de Juanjo, EA5CHQ-EC5ACA. EA-QRP #104, G-QRP #9742,  
QRP-L #1662.

Juanjo Pastor  
C/San Roque, 4-1  
46460 Silla  
SPAIN

e-mail: ea5chq@wanadoo.es  
web: <http://www.ea5chq.tk>  
web del club: <http://www.eaqrp.com>  
Tel.: +034 96 120 17 67  
Movil: 651 35 35 11

-----  
Date: Tue, 3 Feb 2004 10:45:24 -0800 (PST)  
From: Barry N1EU <n1eu@yahoo.com>  
To: qrp-l@lehigh.edu

Subject: [166929] 3T Toggle Switches  
Message-ID: <20040203184524.72283.qmail@web13208.mail.yahoo.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

On several occasions I've looked for SP3T and DP3T toggle switches (ON-ON-ON). I'd appreciate recommendations of a source for 3T toggle switches that actually have 4 sets of terminals - for the pole and 3 throws. Every 3T toggle switch I've found (Mouser, etc.) only had 3 sets of terminals.

Thanks & 73,  
Barry N1EU

-----  
Do you Yahoo!?  
Yahoo! SiteBuilder - Free web site building tool. Try it!  
<http://webhosting.yahoo.com/ps/sb/>

-----  
Date: Tue, 3 Feb 2004 12:07:04 -0700 (MST)  
From: Karl Larsen <k5di@zianet.com>  
To: Dan Tayloe <dtayloe@cox.net>  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [166930] Re: Signal plus Noise to Noise ratio  
Message-ID: <Pine.LNX.4.44.0402031150210.4720-100000@bucket.dog>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Tue, 3 Feb 2004, Dan Tayloe wrote:

> If you can measure the noise, then the signal+noise, and the signal is a  
> known weak level, then you should be able to calculate the noise level  
> in your receiver and the MDS sensitivity. The receiver MDS ought to be  
> the same level as the measured receiver noise.

I tried using the \$10.00 digital multimeter that Chuck Adams likes so much, but the lowest full scale AC range is 100 volts! Now the DC scale has 200 MV full scale and up so I will build an AC probe and do the measurements again.

>  
> Just make sure the AGC is off when making the measurement.  
>

I can turn off the AGC on the FT-817 but not sure if that can be

done on the TS-50. Let me check...nope, just fast and slow.

I need to look at the math again. I know the power input to the radio is 1 micovolt across a 50 ohm load and the noise is no input across a 50 ohm load. At the speaker leads I can measure a value with just noise and then turn on the 1 microvolt signal and measure a rise in speaker voltage. Since the power to the speaker is volts squared / R and R is the same for both readings we don't need to know its value.

> - Dan, N7VE

>

>

--

- Karl Larsen k5di Las Cruces,NM Az ScQRPions -

-----  
Date: Tue, 3 Feb 2004 17:01:38 -0000  
From: "brian russell" <brian-nsl@freenet.co.uk>  
To: <qrp-1@lehigh.edu>  
Subject: [166931] Fw: Les Moxon, G6XN  
Message-ID: <000601c3ea89\$d75755b0\$7e192850@briandlatmd1ba>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

> Hi all,

> Sad news indeed, I had much help on antenna ideas from Les during

> my 20+ years as an SWL, a real gentleman indeed.

> Apart from all his articles, the " Moxon Loop Antenna " will keep him in  
our

> thoughts.

>

> 72, Brian. G0NSL-QRP.

-----



Date: Tue, 3 Feb 2004 10:35:05 -0800  
From: David R Shalita <dave\_shalita@juno.com>  
To: qrp-1@Lehigh.EDU  
Subject: [166932] ELMER 160-Lesson8-"stimulus-won't"  
Message-ID: <20040203.112058.-500915.0.dave\_shalita@juno.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi,

Trying to do the "stimulus" exercise Lesson8a middle of page 3 but the simulator seems to stop after I select FIRE for RA0 or RB0. Only can regain control and advance the program counter with F7 after I "Debugger>Clear Memory>File Registers"

I modified the basic program from

-----

loop goto loop

-----

to this so I can easily see pc: value changing as I press F7 repeatedly.

-----

loop

nop

nop

nop

goto loop

-----

Selecting FIRE for either RA0 or RB0 causes pc: value to stop changing when F7 is pressed.... appears to stall simulator.

Using MPLAB IDE ver 6.3 under WIN98SE on Toshiba Laptop.

Up to now, simulator seems to be running OK.

Really need some suggestions.

Thank you, 73, W6MIK, Dave

-----  
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-----

Date: Tue, 03 Feb 2004 14:28:03 -0500  
From: John Sielke <jsielke@pobox.com>  
To: qrp-1@lehigh.edu  
Subject: [166933] KD1JV SWR/POWER METER  
Message-ID: <401FF643.90602@pobox.com>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii; format=flowed

Content-Transfer-Encoding: 7bit

Just finished mine. What a neat little tool! I built it into the ubiquitous Altoid Tin, to go with my Rainbow Tuner, Tenna Dipper (which I am awaiting), and (finally), AT Sprint.

I appreciate the gentleman that discovered the error in mounting LEDs, so I was able to do it right from the beginning. Another hint. If you mount it with 4-40 hardware, BEWARE if you have the nut on the board side, near the plus terminal of the lefthand battery. It is VERY easy to short. It looks OK until you install the battery, but spreading the battery clips shorts to the nut. I literally cooked one battery, but no harm to the meter.

I also mounted a dpdt switch between the BNC connectors on the end to switch between Forward and Reflected. It BARELY fits, but is nice to not switch connectors.

Great kit, useful tool.

John W2AGN

-----  
Date: Tue, 3 Feb 2004 14:52:53 -0500 (EST)  
From: "Thom R. Lacosta" <lacosta@bcpl.net>  
To: Ed Lawson <k1vp@grizzly.com>  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [166934] Re: ARCI Web Site follow Up  
Message-ID: <Pine.GSO.4.58.0402031449550.12516@mail>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Mon, 2 Feb 2004, Ed Lawson wrote:

> On Mon, 2 Feb 2004 09:21:52 -0800 (PST)  
> Bob KB2FEL <kb2fel@yahoo.com> wrote:  
>  
>  
> > I was requested by Steve G4GXL (ARCI Web Master) to  
> > look at the page and let him know what the problem was  
> > as he could not duplicate it.  
>  
> Common situation. Without getting into this, I suggest it would be  
> rather informative for Steve to run the ARCI pages through a validator

> such as that found at  
>  
> <http://validator.w3c.org>  
>  
> There might be much to be learned from that process.

And...if the validator says it won't work with such things as netscape 4.7 and /or Lynx, then there are simple scripts that detect browsers that will no work, and the visitor can be told and offered a link to upgrade the browser.

It's extra work, but a polite approach, in that it tells the visitor why he can't see the page, and even offers a path to an upgrade.

Thom

<http://www.baltimorehon.com/> Home of the Baltimore Lexicon  
<http://www.tlchost.net/> Web Hosting as low as 3.49/month

-----  
Date: Tue, 3 Feb 2004 15:11:21 -0500  
From: "George Heron N2APB" <n2apb@clearviewcatv.net>  
To: <qrp-1@Lehigh.EDU>, <njqrp@njqrp.org>  
Cc: <n2apb@amsat.org>  
Subject: [166935] PIC-EL: Speaker gets warm in ver 1 test suite  
Message-ID: <200402031511.AA605946130@clearviewcatv.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

Just a reminder to PIC-EL builders that transistor Q5 and the speaker will get warm in the version of software that came pre-programmed the PIC supplied in the kit.

Although not an ideal condition, it won't hurt anything. In the Test software downloadable from the website since last week, we changed the "at-rest" condition of the PIC I/O bit from being a logic HI (which would turn on Q5 and have current going through the speaker), to a logic LO which keeps Q5 turned off.

One of the first things we expected guys to do in testing out the programmer portion of the board was to download the updated Test program and burn the new software into the PIC, thus correcting the problem.

So do indeed download and use the latest T-PICEL test program located on the project page at <http://www.amqrp.org/elmer160/board/manual/manual.html>

73, George N2APB

-----  
Date: Tue, 3 Feb 2004 13:10:13 -0700  
From: "John" <digi2@earthlink.net>  
To: "George Heron" <n2apb@clearviewcatv.net>,  
"QRP-L" <qrp-l@lehigh.edu>  
Subject: [166936] PIC-EL #2 is here  
Message-ID: <001001c3ea91\$bc395fa0\$6401a8c0@HP5400>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

George and the gang,

The second PIC-EL arrived today. Strange that they got separated but they did. My shack is still being cleaned up and it will be another couple of days before I can get to the bench. The only problem is that the wife and I are heading to Mexico for a week on the beach so it will be a while before I can get to it. There is no need for the rest of you to wait around until I return. Go ahead and get busy with the course. I will catch up later. Hi

John K7SVV

-----  
Date: Tue, 3 Feb 2004 15:12:40 -0500  
From: kwike@gdls.com  
To: qrp-l@Lehigh.EDU  
Subject: [166937] Michigan QRP Net  
Message-ID: <0FCF201388.D8FE1C49-0N85256E2F.006EF69B@gdls.com>  
MIME-Version: 1.0  
Content-type: text/plain; charset=us-ascii

We had six check-ins last week. Conditions were fair. 80 is getting crowded these days.

	S	R		
K8CV	599	589	ROYAL OAK	MI WALT
WA8BXN	579	599	CLEVELAND	OH MIKE
K8DD	579		LAPEER	MI HANK
WA8REI	549	539	FREELAND	MI KEN
VE3JC	569	529	LONDON	ON JOHN

W2SH 559 589 MILLINGTON NJ CHARLES

The Michigan QRP Net meets each Tuesday night at 9:00 PM Eastern time on 3.535 MHz +/- QRM. All Hams are welcome.

Ed  
AB8DF  
Waterford, MI

-----  
Date: Tue, 3 Feb 2004 13:27:40 -0700  
From: "John\_Evans" <jaevans@mail.codenet.net>  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [166938] Re: 3T Toggle Switches  
Message-ID: <200402031327.AA85066348@mail.codenet.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

Hi Folks,

On a similar note, I am curious about switch construction in general. Do most toggle switches like this (DP3T, for example) operate on a break before make model?? I would assume this would be standard but, you know what happens when one assumes.

To help with your question, Barry, I've never ordered these types of switches but have located them at surplus houses.

tnx es 72 - john - n0hj

----- Original Message -----  
From: Barry N1EU <n1eu@yahoo.com>  
Reply-To: n1eu@yahoo.com  
Date: Tue, 3 Feb 2004 10:45:24 -0800 (PST)

>On several occasions I've looked for SP3T and DP3T  
>toggle switches (ON-ON-ON). I'd appreciate  
>recommendations of a source for 3T toggle switches  
>that actually have 4 sets of terminals - for the pole  
>and 3 throws. Every 3T toggle switch I've found  
>(Mouser, etc.) only had 3 sets of terminals.  
>  
>Thanks & 73,  
>Barry N1EU

-----

Date: Tue, 3 Feb 2004 15:49:07 -0500  
From: Steve Lawrence <Steve.Lawrence@ITWFEG.COM>  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [166939] Floating Point Libraries for PIC? Amtel?  
Message-ID: <0F3AA21BAC.92F97091-0N85256E2F.0071D69F-85256E2F.00725C83@itwfeg.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="US-ASCII"

Hello!

I'm contemplating a microprocessor based project that will potentially require some floating point math as part of the measurements taken.

I'm also new to PIC and/or Amtel programming and may pick a platform based on the availability of...

Are there floating point libraries available that one can link into a project to do common FP calculations: multiply, divide, square root, integer-to-real conversions, etc.?? The "best" libraries would be free.

What's available?

Steve  
aa8af

-----  
Date: Tue, 3 Feb 2004 16:07:45 -0500  
From: "Noyce, Bill" <william.noyce@hp.com>  
To: <qrp-1@Lehigh.EDU>  
Subject: [166940] Re: Floating Point Libraries for PIC? Amtel?  
Message-ID:  
<6D6463F31027B14FB3B1FB094F2C7447047DA064@tayexc17.americas.cpqcorp.net>  
Content-class: urn:content-classes:message  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="us-ascii"  
Content-Transfer-Encoding: quoted-printable

Do you really need floating point, or can you get by with scaled integers (where the scale factor is built into the program)? I would expect a general floating-point package to use up an awful lot of the available program space...

-- Bill, AB1AV

-----

Date: Tue, 03 Feb 2004 16:10:11 -0500  
From: Garey Barrell <k4oah@mindspring.com>  
To: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>  
Subject: [166941] Elmer 160: Minimum Clearance for DDS Daughtercard  
Message-ID: <40200E33.8070808@mindspring.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii; format=flowed  
Content-Transfer-Encoding: 7bit

Finally getting a chance to put my PicEL together.

For the DDS Daughtercard connector, I found a right-angle 16 pin dip socket. The "upper" row of pins is only 3/8" above the surface of the main board. Can anyone tell me if this is enough clearance to allow plugging in the DDS card? It could be "stretched" to 7/16" if it's that close by putting a shim under the body of the socket. If the clearance is enough, it sure would make for a more rugged connector than the soldered pieces of wire!

73, Garey - K40AH  
Atlanta

-----  
Date: Tue, 3 Feb 2004 16:22:07 -0500  
From: "Russ Hines" <wb8zcc@fuse.net>  
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>  
Subject: [166942] Re: 3T Toggle Switches  
Message-ID: <000701c3ea9b\$c71023a0\$6600a8c0@WB8ZCC2>

Okay, I know it's early in the year, it's cold outside, the groundhog saw his shadow, and Carolina lost the Super Bowl. And, like most of us, I've been around the block once or twice, and as far as I know, have never been dropped on my head.

But I have NEVER seen a SP3T or a DP3T that WASN'T "off" in the middle position. Maybe someone makes some such thing, I don't know. My head may be full of snow and ice by now.

I DO know that in my part of the world, we call an ON-ON-ON 3T switch "A 3-position Selector Switch," and it's usually found in the rotary variety. These are everywhere. Perhaps even at Radio Shack. Use them. They work.

But, you know, there are stranger things in the world, so for all I know there exists a 12-position DP toggle switch.

Barry, good luck, bud. If you find your switch, please let us know.

All in good humor,

73,  
Russ  
WB8ZCC

----- Original Message -----

From: "John\_Evans" <jaevans@mail.codenet.net>  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Sent: Tuesday, February 03, 2004 3:27 PM  
Subject: Re: 3T Toggle Switches

> Hi Folks,  
> On a similar note, I am curious about switch construction in general.  
Do most toggle switches like this (DP3T, for example) operate on a break  
before make model?? I would assume this would be standard but, you know  
what happens when one assumes.

>  
> To help with your question, Barry, I've never ordered these types of  
switches but have located them at surplus houses.

>  
> tn timer 72 - john - n0hj

>  
> ----- Original Message -----

> From: Barry N1EU <n1eu@yahoo.com>  
> Reply-To: n1eu@yahoo.com  
> Date: Tue, 3 Feb 2004 10:45:24 -0800 (PST)

>  
> >On several occasions I've looked for SP3T and DP3T  
> >toggle switches (ON-ON-ON). I'd appreciate  
> >recommendations of a source for 3T toggle switches  
> >that actually have 4 sets of terminals - for the pole  
> >and 3 throws. Every 3T toggle switch I've found  
> >(Mouser, etc.) only had 3 sets of terminals.

> >  
> >Thanks & 73,  
> >Barry N1EU

>  
>

-----



Date: Tue, 3 Feb 2004 16:35:58 -0500  
From: "carl seyersdahl" <carlseye@tampabay.rr.com>  
To: <n1eu@yahoo.com>,  
"Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [166943] Re: 3T Toggle Switches  
Message-ID: <004b01c3ea9d\$b6dfef40\$d138ca44@tampabay.rr.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

I am having the same problem.!! The nomenclature

SP3T would tend to indicate there is a center position whic should be either to separate contacts or should be an off pos. I ordered some switches from Mouser, listed as

On-None-On, which I would take to be a 3 pos. switch with the center pos. being Off. No so with what they sent me, which was a SPDT , no center off. I have a toggle switch with a center -locking Off position but I need some slide switches (small ones) and have yet to find any. I intend to e-mail Mouser about this problem as I think their catalog description is incorrect.!!!

In the meantime , if anyone knows where I can find some real 3 pos. either 1 or 2 pole min. slide switches , I'd appreciate the info.They must be 3positions, with center off. Thanks for the bandwidth .!!!!

carl / kz5ca

----- Original Message -----

From: "Barry N1EU" <n1eu@yahoo.com>  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Sent: Tuesday, February 03, 2004 1:45 PM  
Subject: 3T Toggle Switches

> On several occasions I've looked for SP3T and DP3T  
> toggle switches (ON-ON-ON). I'd appreciate  
> recommendations of a source for 3T toggle switches  
> that actually have 4 sets of terminals - for the pole  
> and 3 throws. Every 3T toggle switch I've found  
> (Mouser, etc.) only had 3 sets of terminals.  
>  
> Thanks & 73,  
> Barry N1EU  
>  
> -----  
> Do you Yahoo!?  
> Yahoo! SiteBuilder - Free web site building tool. Try it!  
> <http://webhosting.yahoo.com/ps/sb/>

-----  
Date: Tue, 3 Feb 2004 14:44:48 -0700  
From: "John" <digi2@earthlink.net>  
To: "QRP-L" <qrp-l@lehigh.edu>  
Subject: [166944] Atmel AVR Design Contest  
Message-ID: <000901c3ea9e\$f26ae550\$6401a8c0@HP5400>  
MIME-Version: 1.0  
Content-Type: text/plain;  
          charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

I just read a message from Circuit Cellar that talked about Atmel's 2004 AVR Design Contest. They will provide free AVR samples and a Starter Kit.

<http://www.circuitcellar.com/avr2004/>

John K7SVV

-----  
Date: Tue, 03 Feb 2004 16:15:24 -0600 (CST)  
From: "Brian.Buydens@usask.ca" <buydens@duke.usask.ca>  
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Cc: Brian Buydens <brian.buydens@usask.ca>  
Subject: [166945] OT Soldering Aluminum  
Message-ID: <Pine.OSF.4.53.0402031611100.362153@duke.usask.ca>  
MIME-version: 1.0  
Content-type: TEXT/PLAIN; charset=US-ASCII

This is off-topic so I will try to be brief (and please delete if you are not interested...)

I am looking to solder aluminum (more specifically a radiator). Do any of you soldering experts know of a technique. I was thinking of trying silver solder and coating the affected areas in oil before soldering. My hope is that I will be able to get the solder on before the oil boils away and the aluminum oxidizes.

Is there a better way to do this?

(BTW there is a tie-in with ham radio. Currently I am spending my spare time fixing my car when I would rather be doing the Elmer 160 course ;-)  
so the quicker I get this sorted out...)

Thanks.

Brian Buydens  
Veterinary Electronic Data Specialist  
Computing Services, University of Saskatchewan  
email: Brian.Buydens@usask.ca  
<http://duke.usask.ca/~buydens>  
VE5RDV

-----  
I am a proud citizen of "Soviet Canuckistan"

-----  
Date: Tue, 3 Feb 2004 16:15:56 -0600  
From: "Jerry Ford" <benlightnd13@mchsi.com>  
To: "qrp-1" <qrp-1@lehigh.edu>, "FPigs" <fpqrp-1@mpna.com>  
Subject: [166946] Truffle hunt  
Message-ID: <000b01c3eaa3\$4c54caa0\$7238d90c@mchsi.com>

Ladies and Gentlemen:

I have the pleasure of being your Truffle this evening.

Short and sweet, I'll be operating in the usual spot somewhere  
above 7040 and I'll be working simplex. The usual exchange is in  
affect so come one come all and lets see what the bands are doing.

Hope to see ya there.

72 es oo Jerry N0JRN  
FP # 546, 4SQRP, ARS # 923, ARCI # 11049, ARRL,  
Springfield, Mo. MP + #8  
<http://home.mchsi.com/~n0jrn>

-----  
Date: Tue, 03 Feb 2004 17:12:58 -0500  
From: Peter Burbank <peterlee@qx.net>  
To: <jaevans@mail.codenet.net>,

"Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>  
Subject: [166947] Re: 3T Toggle Switches  
Message-ID: <5.2.0.9.0.20040203170315.00a4bba0@mail.qx.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

John, Barry and gang.  
I would assume that a DP3T toggle would have 8 terminals and would break before make. The only make before break switches I have seen are wafer type. A source for strange switches is Johnstone Supply under fan control switches. The catalog I have has the RU logo with the "R" backwards. I'm curious about the logo as I see it in electronic catalogs too.  
73 Pete NV4V

At 03:27 PM 2/3/2004, John\_Evans wrote:

>Hi Folks,  
> On a similar note, I am curious about switch construction in  
> general. Do most toggle switches like this (DP3T, for example) operate  
> on a break before make model?? I would assume this would be standard  
> but, you know what happens when one assumes.  
>  
> To help with your question, Barry, I've never ordered these types of  
> switches but have located them at surplus houses.  
>  
>tnx es 72 - john - n0hj  
>  
>----- Original Message -----  
>From: Barry N1EU <n1eu@yahoo.com>  
>Reply-To: n1eu@yahoo.com  
>Date: Tue, 3 Feb 2004 10:45:24 -0800 (PST)  
>  
> >On several occasions I've looked for SP3T and DP3T  
> >toggle switches (ON-ON-ON). I'd appreciate  
> >recommendations of a source for 3T toggle switches  
> >that actually have 4 sets of terminals - for the pole  
> >and 3 throws. Every 3T toggle switch I've found  
> >(Mouser, etc.) only had 3 sets of terminals.  
> >  
> >Thanks & 73,  
> >Barry N1EU

-----

Date: Tue, 3 Feb 2004 17:20:18 -0500  
From: "John J. McDonough" <wb8rcr@arrl.net>  
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>  
Cc: <Steve.Lawrence@ITWFEG.COM>  
Subject: [166948] Re: Floating Point Libraries for PIC? Amtel?  
Message-ID: <001501c3eaa3\$e85f89d0\$090044c0@BrianBoru>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

There are in fact floating point libraries for the PIC, and I'm sure that there must be for the Atmel as well. These embedded processors are pretty stupid and the FP libraries are pretty ugly. However, in embedded applications, it's fairly unusual to need them (or even want them).

It's not unlike operating QRP. The operator who understands propagation rarely finds he needs a kilowatt. Similarly, someone who understands his embedded control application rarely finds he needs floating point.

72/73 de WB8RCR      <http://www.qsl.net/wb8rcr>  
didileydadidah      QRP-L #1446 Code Warriors #35

----- Original Message -----

From: "Steve Lawrence" <Steve.Lawrence@ITWFEG.COM>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Sent: Tuesday, February 03, 2004 3:49 PM  
Subject: Floating Point Libraries for PIC? Amtel?

> Hello!  
> I'm contemplating a microprocessor based project that will potentially  
> require some floating point math as part of the measurements taken.  
>  
> I'm also new to PIC and/or Amtel programming and may pick a platform based  
> on the availability of...  
>  
> Are there floating point libraries available that one can link into a  
> project to do common FP calculations: multiply, divide, square root,  
> integer-to-real conversions, etc.?? The "best" libraries would be free.  
>  
> What's available?  
>  
> Steve  
> aa8af  
>  
>

-----  
Date: Tue, 3 Feb 2004 17:25:58 -0500  
From: "Mike Yetsko" <myetsko@insydesw.com>  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [166949] SOMEONE here has a virus...  
Message-ID: <007301c3eaa4\$b809ec20\$0200a8c0@charter.net>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

OK, PLEASE check your systems!

Someone on this mail list has had their machine hijacked and it's sending out SPAM but with MY email address in the from line. I just got 384 bounced email messages of one form or another. Since 9am this morning!

I've gotten a few bounced messages, I may have enough eventually to ID the person.

But for now, he's on the 'rr' system.

PLEASE check your systems people!!!

-----  
Date: Tue, 3 Feb 2004 17:39:27 -0600  
From: "Craig Johnson" <cbjohns@cbjohns.com>  
To: <k4oah@mindspring.com>,  
      "Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>  
Subject: [166950] Re: Elmer 160: Minimum Clearance for DDS Daughtercard  
Message-ID: <025f01c3eaae\$f6d18080\$6201a8c0@cbjp2>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Garey,

> For the DDS Daughtercard connector, I found a right-angle 16 pin dip socket.  
> The "upper" row of pins is only 3/8" above the surface of the main board. Can  
> anyone tell me if this is enough clearance to allow plugging in the DDS card?  
> It could be "stretched" to 7/16" if it's that close by putting a shim under the  
> body of the socket. If the clearance is enough, it sure would make for a more

> rugged connector than the soldered pieces of wire!

I think 3/8" is probably enough but 7/16" would be better. Mine (still a prototype!) measures 5/16" from the PC board to the Daughtercard pins when it is laying flat on the board.

Where did you find the 16 pin right angled DIP socket? I can't find them in any of my catalogs.

72,  
Craig, AA0ZZ

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End of QRP-L Digest 3185  
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